

The Lattice

Vol. 1, No. 2 May, 1985

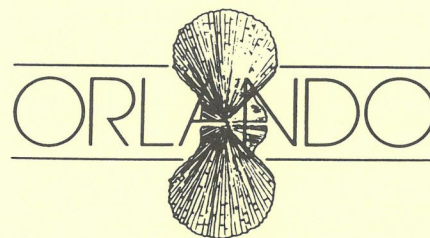
Now is the Time to Begin Thinking About the Annual MSA/GSA Meeting this Fall

Before you get busy this Fall, plan to take time now to make arrangements to attend the 1985 MSA/GSA Annual Meeting October 28-31, in Orlando, Florida. The pre-meeting announcement from GSA is contained on pages 5-7 of this issue. Please read this information and note the contact names for additional information. The complete MSA/GSA pre-registration packet will be mailed with the August issue of *The Lattice*. A complete outline of MSA activities at the meeting will be featured in that issue.

In addition to MSA activities at the meeting, the Society and its members play an active role in planning the sessions and activities associated with GSA during the meeting. Three MSA members represent the Society on the Joint Technical Program

Committee (JTPC) which meets each year to plan the program. MSA participants this year are Maryellen Cameron, University of Oklahoma, MSA representative; Richard N. Abbott, Appalachian State University, conferee; and Roger G. Burns, MIT, reader. Each participant serves a three-year term rotating through the positions from reader to representative.

This year JTPC members from MSA will review abstracts submitted to GSA on the topics of Mineralogy/Petrology, Experimental Petrology, Metamorphic Petrology, Igneous Petrology, and Volcanology. It is their responsibility, and that of the people they select to read the papers, to rate each entry and determine which papers will be scheduled into sessions



and poster sessions. Each year MSA representatives to JTPC encourage GSA to include more time for papers in these subjects of particular interest to MSA members.

This year when you attend the MSA/GSA annual meeting be aware that MSA plays an important role in the activities that reaches beyond the special Society meetings for members. The joint meeting with GSA is just that—a cooperative effort between societies to bring together the best papers and activities for both memberships.

Speakers Set For Wones Memorial Symposium at GSA

"Quantitative Petrology: Theory, Experiment and Field. A symposium in honor of David R. Wones," is the title of the MSA symposium to be held during the MSA/GSA annual meeting in Orlando. The symposium is tentatively scheduled for Monday afternoon, October 29, beginning at 2 p.m.

The symposium will explore some of the broad range of petrologic and mineralogic topics that were dominant in Wones' distinguished career. Wones, 1979 MSA President, was killed in an auto accident this past November.

Co-convenors for the symposium are Hans P. Eugster and David R. Stewart. Scheduled speakers include:

• D. A. Hewitt, VPI & SU, "Control of Intensive Parameters in Experimental Petrology and Their Estimation from Natural Assemblages."

• R. M. Hazen, Geophysical Laboratory, "Mineral Structure, Stability, and Physical Properties: The Polyhedral Approach."

• C. W. Burnham, Pennsylvania State University, "Thermodynamic Models and Speciation in Granitic Melts."

• A. J. White, A.N.U., "Chemical Evidence for Different Sources of Granitic Magmas."

• B. D. Marsh, Johns Hopkins University, "Magma Dynamics and Crystallinity."

• H. P. Taylor, Jr., Caltech, "Granites and Isotopes."

• R. A. Ayuso, U.S.G.S., "Lead Isotope and Geochemical Evidence for Distinct Granite Sources in New England."

• D. B. Stewart, J. Unger, and J. Luetgert, U.S.G.S., "Characterization of the Crust of Maine by Seismic Reflection and Refraction."

• Please refer to the MSA/GSA meeting registration materials in the August issue of *The Lattice* for the exact time and location of this symposium as the schedule is now tentative. Inquiries concerning the contents of the symposium should be directed to Hans P. Eugster, Dept of Earth & Planetary Sciences, Johns Hopkins University, Baltimore, MD 21218; (301) 338-7135.

Special Low Fares to Orlando!

A special convention rate has been arranged through Business Travel Associates on Delta Airlines for MSA members and their guests traveling to Orlando, Florida to attend the MSA/GSA Annual Meeting October 28-31, 1985. Save 40% on roundtrip flights on Delta or insure yourself of the lowest fare to Orlando on any major airline by calling Bud at Business Travel Associates:

1-800-443-4502 (toll free).

Tickets must be purchased seven (7) days prior to your departure. This offer applies only to flights originating within the continental United States.

From the President

MSA Continues To Grow as Council Looks Toward the Future

Dear Friends,

This, the second issue of *The Lattice*, edited by Barbara Minich, contains the 1985-1988 Membership Directory. After reading the newsletter, carefully remove it from the center of the directory and save the Directory—it's the only up-to-date list of MSA members you will get for three years. We do hope, however, that you will study *The Lattice* carefully before you remove it because it will give you some interesting insights.

To me the most exciting news items are the fact that 180 new members have joined MSA in 1984 and that we sold more than 20 volumes of the *Reviews in Mineralogy* series daily since last Fall! When I first joined the Council I was concerned by the membership figures and the declining sales of Review volumes. Growth in both areas is essential for the well-being of MSA and that has been achieved through hard work by many people, including the dedicated staff in your Washington office. Thanks to everybody concerned, MSA remains healthy and we can tackle problems such as long-range planning at our May Council meeting. I will tell you about the results in my next letter. By the time you get this issue, that meeting will only be days away, and your thoughts might already be turning to our Fall meeting in Orlando. Barbara has included items on the Fall meeting, but more in the August issue.

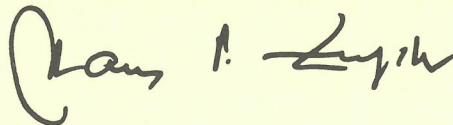
Lou Cabri, President of the Canadian Mineralogical Association and I have had several conversations, with respect to overlap in our respective short courses, as well as other issues of mutual concern. In the past we have freely drawn on Canadian experts, many of whom are also MSA members, and we will continue to do so. Similarly, MAC short courses will cross over into our "territory." I look at this not as competition but as extending the offerings to all mineralogists and petrologists. Our best assurance for continued success is timely topics and the

very highest quality. Interestingly enough, European Mineralogical Societies are also talking about improved cooperation and coordination as you can see elsewhere in this issue. They have, of course, the additional concern of different languages.

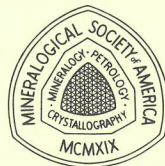
Within our own membership we have constituencies which might feel neglected. Fred Mumpton, a member of the Development Committee, points out that we should be more aware of the needs of the applied mineralogist and he has made valuable suggestions how to accomplish this. This issue will be discussed by Council, but there is little danger that we will follow the example of the American Chemical Society. On the other hand, we can only gain by paying more attention to our colleagues who are not so academically oriented.

I hope you continue to find *The Lattice* useful and that you let us have your thoughts. We are trying to strike a balance between information and informality, not getting too heavy or too superficial. You can influence that balance by speaking up. Your MSA officers are looking forward to seeing you at the AGU meeting in Baltimore or, if not, at the Orlando meeting.

With best wishes,



Hans P. Eugster
President



The Lattice is published quarterly (February, May, August, November) by the Mineralogical Society of America. The newsletter is distributed to MSA members as a member service. Articles and letters from readers are welcome.

1985 President: Hans P. Eugster

Past President: Charles T. Prewitt

Vice-President: Paul B. Barton, Jr.

Secretary: Henry O. A. Meyer

Treasurer: Gordon L. Nord, Jr.

Executive Secretary: Barbara B. Minich

Address letters and comments to: The Editor, Mineralogical Society of America, 2000 Florida Avenue N.W., Washington, D.C. 20009; (202) 462-6913.

Letters to the Editor

Dear Editor,

As a foreign member of the Society for a number of years, I have a suggestion concerning broadening of the editorship of the Journal.

Whilst reading through the last membership list, I noted the relatively large numbers of foreign (non-North American) members. For these members the primary contact with the Society is through the Journal (*The American Mineralogist*). Yet the Journal is itself exclusively North American in its editorship. This of course is perfectly legitimate for a society which is named the Mineralogical Society of America. My suggestion is that broadening of the Associate Editorship be considered to include incorporation of a number (2, 3, or 4) of foreign (i.e., non-North American) Associate Editors. The role of these Editors could be two fold: a) reviewing supervision of papers submitted by non-North American scientists. This would be particularly helpful where papers have some regional implications. b) acting as representatives of the Society in soliciting manuscripts from non-North Americans. In other words broadening the scope of the Journal by increasing the number of foreign submissions.

I will not quote precedents from other societies, because these really can be interpreted any way you like. Nor am I suggesting that, like the Geochemical Society, foreign Councillors be included; this in my opinion is too expensive. The suggestion I wish you to bring for discussion before Council is: That several, well placed foreign (non-North American) Associate Editors be added to the Editorial Board with the aim of broadening the submission to the Journal and the more efficient editorship of foreign submissions.

Alan Matthews
Associate Professor
The Hebrew University
of Jerusalem

Dear Editor,

I have an almost complete file of *The American Mineralogist* from Volume 1 to the present. Since my retirement and smaller quarters, I am running out of space for my various geological journals. I would like to donate my collection to some appropriate school library. If you know of any such situation, I would appreciate hearing of them.

William C. Fackler

(Editor's note: Interested libraries should contact the MSA Business Office, 2000 Florida Avenue, N.W., Washington, D.C. 20009 for more information. All inquiries will be forwarded to Dr. Fackler.)

News in Brief

The 1983 Annual Science Citation Index has ranked *The American Mineralogist* 483 out of 4,246 world-class journals based on the number of citations in other journals. Subtitled "A Bibliometric Analysis of Science Journals in the ISI Data Base," the publication produces an international interdisciplinary index for scientific, medical, agricultural, technical and behavioural sciences. An impact factor is calculated for each journal by dividing the total number of references published in 1983 to articles published in the 1981 and 1982 issues of the journal by the number of source articles published those same years. This process produces an equal basis for comparing large and small, new and old journals. The impact factor for *The American Mineralogist* has been calculated at 2.110 giving the journal the relatively high ranking.

MSA is in the process of changing to a new bank. In the future, foreign members who wish to deposit directly to the MSA bank account should use the following information:

1st American Bank N.A.
1100 Connecticut Avenue N.W.
Washington, D.C. 20036
acct #3-333-787.

Please be sure to send written documentation to the Business Office of what was ordered and the amount of funds transferred.

As you look through the 1985-1988 *Membership Directory*, you may recognize many new names. Over 180 professionals and students joined the Society in 1984, boosting the final membership count to 2943—the largest number ever!

Already in 1985 over 100 professionals and students have joined the Society and 85 percent of the 1984 members have chosen to renew their membership. In addition, we have welcomed back several members whose membership had lapsed over the past three years. Another positive note is that 100 of the 619 student members from 1984 have converted to full members for 1985.

The 1985 Council will discuss several additional programs to encourage new members and help serve existing members at its meeting in May.

Members of the Group of European Mineralogists (GEM) decided at their 1984 meeting in Cambridge to recommend to the Councils of the British, French, German, Italian and Swiss societies that, *provided there is sufficient demand*, the five society journals be offered to members of any of the fourteen GEM societies at a 40 percent discount if they take all five journals. The offer will be conditional upon the approval of the

Councils of the five Societies, and providing enough members wish to take advantage of this offer. (*Mineralogical Abstracts* and *Clay Minerals* would not be included in this proposal.) If you wish to take up this offer, please write to the General Secretary confirming that you would undertake to pay 60 percent of the total sum, at the rates current for the year in question, in advance, for the full set of five journals. At 1984 membership rates, the five journals would be offered at L52 for all five. (Reprinted from the *Mineralogical Society Bulletin*.)

The deadline for applications for the 1986 Crystallography Research Grant is August 1. Applications may be obtained from the Business Office (2000 Florida Avenue N.W., Washington, D.C. 20009). The grant amount for 1986 is \$3500. Applicants between the ages of 25 and 35 conducting research in crystallography with direct relevance to mineralogy and petrology are urged to apply. The recipient will be announced in November.

The names of all members who notified the Business Office that they did not receive their *Mineralogical Abstract Index* for 1982 have been forwarded to the publisher. Issues are being sent to all claimants. Indexes for 1983 and 1984 are expected to be published this Fall. The date of publication will be announced in a future issue of *The Lattice*.

Maryellen Cameron, MSA representative to the Joint Technical Program Committee of the Geological Society of America is seeking topics for symposia at future meetings. Members with suggestions should contact either Maryellen at the University of Oklahoma, or the MSA Business Office.

The Mineralogical Association of Canada is cosponsoring the 4th International Platinum Symposium and Field Trips (to be held in Toronto with field trips to Stillwater Complex and Sudbury, between July 27 and August 7, 1985) cosponsored by SEG and IGCP Project 161. Abstracts will be published in the *Canadian Mineralogist*. The journal will also publish the abstracts of the IGCP field conference and symposium in mafic and

Did you know . . .

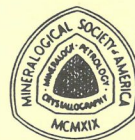
. . . Brian Mason, Smithsonian Institute, Washington, D.C., has been appointed the Society's archivist following the death of George T. Faust . . . Alexandra Navrotsky, MSA Councillor and a chair of the Spring Short Course, is moving to Princeton University this Fall from the University of Arizona . . . the Symposium on Ore Genesis in Heidelberg, West Germany this past February was named in honor of the late Paul Ramdohr, a Life Fellow of MSA. Dr. Ramdohr was 95 years old at the time of the meeting.

ultramafic rocks (Alaska, Montana and Minnesota) organized by G. Czamanske which will be held July 14-30, 1985. For more information on either of these activities, contact Jayanta Guha, Chairman, Publicity Committee, (Sciences de la terre), Universite du Quebec a Chicoutimi, Chicoutimi, Quebec, Canada. Phone: (418) 545-5222.

Volume 14 Rolls Off the Presses

Volume 14 in the *Reviews in Mineralogy* series came off the press in early May, in plenty of time for the short course of the same title, "*Microscopic to Macroscopic: Atomic Environments to Mineral Thermodynamics*." Editors Sue Kieffer (USGS, Flagstaff) and Alexandra Navrotsky (Arizona State) are hoping that a shortened version of the title (bold italics) will catch on. The 428-page book represents an attempt to answer the questions, "What minerals exist under given constraints of pressure, temperature, and composition, and why?" The ten contributing authors also lectured at the short course presented May 24-26, 1985 on the campus of Washington College, Chestertown, Maryland.

Copies of the book may be obtained by sending a check for \$13.00 (U.S. funds) to the MSA Business Office, 2000 Florida Avenue N.W., Washington, D.C. 20009. MSA members may deduct the 20% member discount from the postpaid price.



REVIEWS in MINERALOGY

Volume 14

MICROSCOPIC to MACROSCOPIC

Atomic Environments to Mineral Thermodynamics

S. W. KIEFFER & A. NAVROTSKY, Editors

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Delta Airlines Offers MSA Members 40% Discount on Flights to Annual Convention

MSA is pleased to announce a first-time benefit for its members attending the MSA/GSA Annual Meeting October 28-31 in Orlando, Florida. By special arrangement, MSA is able to offer its members 40 percent off coach fares on Delta Airlines, or the lowest available fares on any airline that services Orlando from your home town.

IMA Meeting Shapes Up for 1986

The Mineralogical Society of America and the U.S. Geological Survey are joint sponsors of the 14th General Meeting of the International Mineralogical Association to be held July 13-18, 1986 at Stanford University, Stanford, California.

Four general themes will be discussed at the meeting: Geochemistry and Mineralogy of Granites, Pegmatites, and Skarns; Thermodynamics and Kinetics of Minerals; Physics and Chemistry of Mantle Materials; and Environmental and Industrial Mineralogy. The program will include symposia and plenary lectures organized around these central themes.

In addition to the scientific program, there will be an exhibition of equipment, minerals, and publications. There will also be pre- and post-meeting field trips.

For additional information, please request a First Circular from the Organizing Committee, IMA 1986, P.O. Box 183, Stony Brook, New York 11790, U.S.A. The Second Circular with a call for papers will be sent in September to everyone who returns the form included in the First Circular. Specific questions may be addressed to the General Chairman, Prof. C. T. Prewitt, in care of the Organizing Committee's address listed above.

In Memorium

We mourn the passing of the following MSA members and fellows. MSA extends its condolences to the families of these scientists.

W. D. Christianson
George T. Faust
Frederic Galbraith
Donald H. McLaughlin
Paul Ramdohr

In conjunction with Business Travel Associates and Delta Airlines, the Society's official travel agency and airline respectively, MSA members may take advantage of this money-saving offer on any roundtrip flights on Delta originating between October 21 and 31 with return flights scheduled in the next 15 days (through November 15).

You must purchase your ticket seven (7) days prior to departure. However, to ensure the lowest fares on the flights you want, plan to purchase your tickets at least 45 days prior to your departure date.

To make your travel arrangements, call Bud at Business Travel Associates, 1-800-443-4502 (toll free). If Delta airlines does not service your city, he can also assist you with the lowest fares on available airline carriers. When you make your reservation, please be sure to mention that you are an MSA member attending the annual meeting.



Watch the August issue of *The Lattice* for information on discount car rentals while you are in Orlando.

Travel arrangements made through Business Travel Associates for travel on Delta Airlines or any other commercial carrier constitute an agreement between the individual and the appropriate company(ies). MSA is happy to offer this service to its members, but will not assume liability for accidents or other difficulties incurred under these arrangements.

State-of-the-Art Short Course in Crystallography Set for Orlando in October

Many people have expressed interest in attending the short course in Crystallography to be presented October 24-27, just prior to the MSA/GSA annual meeting in Orlando, Florida. G. V. Gibbs, and M. B. Boisen, Jr., both from Virginia Polytechnic Institute and State University are co-conveners.

The primary goal of the course is to show that a rigorous approach based firmly on mathematical principles is easier to understand and apply than the phenomenological approach used in standard mineralogy texts. Extensive prior knowledge of these subjects is not required. The course will present mathematical development of the point groups and space groups and explain how the mathematical underpinnings of the subject can be applied to the solution of numerous crystallographic problems.

The properties of a vector space will be examined and symmetry operation will be defined and their matrix representations derived, followed by a derivation of the 32 crystallographic point groups. Bravais lattices will be examined and a method of deriving matrix representations for translational isometries will be discussed. The theory of deriving the space groups will be presented and related to crystal structure.

IBM has donated several color PCs for use by meeting participants. These computers will be available during evening sessions so attendees may undertake crystallographic calculations including the construction of matrices for point groups and space groups

operations and the calculation of transformation of bases and the geometries of the lattices of crystals.

The short course will be held at the Holiday Inn on International Drive in Orlando, a short distance from the MSA/GSA headquarters hotel. Meeting participants will be able to take advantage of special airfares offered to MSA/GSA meeting registrants through Business Travel Associates and Delta Airlines. Participants will also receive the GSA room rate at the hotel: \$47/single, \$53/double.

The cost of the short course is:

MSA Member—\$200.00
MSA Student Member—\$150.00
Non-Member—\$235.00
Non-Member Student—\$165.00

Registration fees include lunch Friday and Saturday. A get-acquainted reception will be held Wednesday evening, October 23. Meeting participants will receive software designed for the IBM PC as part of the course registration fee.

Enrollment is limited to 35 persons so that all participants will be able to use the computers. If you are interested in attending, immediately contact G. V. Gibbs for registration materials at the Department of Geological Sciences, 5057 Derring Hall, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061-0796; (703) 961-6330.

1985 ANNUAL MEETING

PRELIMINARY ANNOUNCEMENT AND CALL FOR PAPERS

Technical sessions for the 1985 GSA Annual Meeting consist of both volunteered papers and invited symposia. Chairmen of the Joint Technical Program Committee are James F. Tull and Joseph Donoghue, Dept. of Geology, Florida State University, Tallahassee, FL 32306.

For any information related to abstracts, call Miriam Hansen, GSA Abstracts Coordinator, at (303) 447-8850.

VOLUNTEERED PAPERS. Abstracts for the technical sessions (both oral and poster presentations) must be submitted on 1985 abstract forms, available from GSA headquarters (P.O. Box 9140, Boulder, CO 80301) and from the geology departments of most colleges and universities. The abstract form will be used as camera-ready copy for publication of *Abstracts with Programs*. Senior authors will be charged a \$15 fee if retyping is necessary, and there will be no opportunity for authors to review or revise typed abstracts after they are submitted. *Note:* No more than one abstract from any person as sole or senior author will be accepted for publication, and due to scheduling difficulties, no author may present more than one volunteered paper. These restrictions do not apply to symposia.

DEADLINE FOR RECEIPT OF VOLUNTEERED ABSTRACTS AT GSA: FRIDAY, JUNE 7, 1985

Normal length of presentation is 15 minutes, including time for discussion. Projection equipment consists of TWO 35-mm (2" x 2") projectors and two screens. Overhead projectors will be provided on request. Each poster session speaker will be provided with three tackboards approximately 7'8" wide and 4' high. The boards are hung horizontally on an 8' x 8', three-sided booth. Poster speakers are scheduled in four-hour intervals.

INVITED SYMPOSIA. Communicate with the symposium convener about symposia abstracts or participation. Symposia abstracts are to be sent directly to the convener—not to GSA. The schedule of symposia and other programming will appear in the August issue of *News & Information*.

1. **Archaeological Sites: Their Adaptation to Marine Environments.** Archaeological Geology Division; Charles Vitaliano.
2. **The Peat to Lignite Transition.** Coal Geology Division; Arthur D. Cohen.
3. **Engineering Geology of Low-Energy Coastlines.** Engineering Geology Division; Robert L. Schuster.
4. **Radiometric Calibration of Thermal History and Applications to Geophysics.** Geophysics Division; Tullis C. Onstott.
5. **History of Investigations of Recent and Ancient Reefs.** History of Geology Division; Joseph T. Gregory.
6. **Multiple Uses of Aquifers.** Hydrogeology Division; John Vecchioli.
7. **Rifting and Volcanism: The Planetary Perspective.** Planetary Geology Division; Victor R. Baker.
8. **Sedimentary Processes and Deposits of Low Energy Coastlines.** Quaternary Geology and Geomorphology Division; Albert C. Hine.
9. **Sedimentologic Consequences of Convulsive Events.** Sedimentary Geology; H. Edward Clifton.
10. **Caribbean Tectonics.** Structural Geology and Tectonics Division; Grenville Draper.
11. **Evolutionary Paleobiogeography I: Climate Change and**

the Species. Cushman Foundation; Thomas M. Cronin.

12. **Proterozoic Massif-Type Anorthosites and Related Rocks: Their Origins and Implications for the Evolution of the Earth's Crust and Mantle.** E. Craig Simmons.
13. **Micros, Minis and Geoscience Information.** Geoscience Information Society; Annette E. Bourgeois.
14. **Quantitative Petrology: Theory, Experiment and Field.** Mineralogical Society of America; Hans P. Eugster.
15. **Recent Advances in Structural Geology: Implications for Instruction.** National Association of Geology Teachers; H. Robert Burger.
16. **Evolutionary Paleobiogeography II.** Paleontological Society; Karl W. Flessa.
17. **Gold Deposits in Metamorphosed Terranes.** Society of Economic Geology; Ulrich Peterson.
18. **Metamorphic Histories of Appalachian Terranes: Contrasts and Comparisons across Possible Microplate Boundaries.** Gail S. Russell.
19. **The First Fifty Million Years of Cenozoic Climate.** Thomas J. Crowley.
20. **Melanges and Olistostromes of the U.S. Appalachians.** J. Wright Horton.
21. **Paleosols and Weathering through Geologic Time: Principles and Applications.** Wayne R. Sigleo.
22. **Opportunities for Study in an Ultra-Deep Scientific Drill Hole in the Southern Appalachians.** Robert D. Hatcher, Jr.
23. **Decade of North American Geology: The Atlantic Coastal Plain and Continental Margin.** Robert E. Sheridan and J. Grow.
24. **Geochemical Fossils: Precambrian to Recent.** John Zumberge.

FIELD TRIPS

Orlando is centrally located in Florida and offers easy access to many interesting geologic exposures. The oldest surficial rocks in Florida are middle Eocene. Miocene and younger sandstone, clay, and carbonate rocks, which are dominant, blanket most of the peninsula. Phosphatic sands, delicate environments of deposition, wetlands, and extensive karst topographies provide unique opportunities for local field trips. The proximity of Florida to the southern Appalachian Highlands, the Bahamas Platform, and the Caribbean islands affords a basis for field trips to diverse and classic geologic features in these areas. Select a trip that touches your fancy: Appalachian geology, coastal processes, carbonate landforms, archaeology, Caribbean plate geology, Andean geology, and more.

The 1985 Field Trip Chairman is Douglas L. Smith, Dept. of Geology, University of Florida, Gainesville, FL 32611. (904) 392-6766. Feel free to contact Doug Smith or the Field Trip Coordinator at GSA headquarters, Kathy Ohmie, (303) 447-2020 if you have further questions.

Premeeting Trips

- 1. Sedimentology of a Barrier Island and Marsh Dominated Coast, West-Central Florida.** Richard A. David, Jr., University of South Florida, Tampa; Albert C. Hine, University of South Florida, St. Petersburg; Daniel F. Belknap, University of Maine, Orono. Three days, October 25, 26, 27.
- 2. Pleistocene and Holocene Carbonate Environments on San Salvador Island, Bahamas.** H. Allen Curran, Smith College, Northampton; Roger J. Bain, University of Akron, Akron; James L. Carew, College of Charleston, Charleston; John E. Mylroie, Murray State University, Murray; James W. Teeter, University of Akron, Akron; Brian White, Smith College, Northampton. Three and one-half days, October 24, 25, 26, 27.
- 3. Karst Hydrogeology of Central and North Florida.** Barry F. Beck, University of Central Florida, Orlando. One day (meet previous evening), October 27.
- 4. Coastal Geology and the Occurrence of Beachrock: Central Florida Atlantic Coast.** Donald K. Stauble, Florida Institute of Technology, Melbourne; Donald F. McNeill, Environmental Science and Engineering, Inc., Gainesville. Three days, October 25, 26, 27.
- 5. Geology of Southernmost Piedmont of Georgia.** Steven Kish, Florida State University, Tallahassee; Steven Schamel, University of South Carolina, Columbia; Thomas B. Hanley, Columbus College, Columbus. Three days (meet previous evening), October 25, 26, 27.
- 6. Volcanic-Hosted Gold and High-Alumina Rocks of the Carolina Slate Belt, North Carolina and South Carolina.** P. Geoffrey Feiss, University of North Carolina, Chapel Hill; J. Robert Butler, University of North Carolina, Chapel Hill; Terrence L. Klein, USGS—Reston; Robert G. Schmidt, USGS—Reston. Four days (meet previous evening), October 24, 25, 26, 27.
- 7. Carboniferous Coal-Bearing Rocks and the Mississippian/Pennsylvanian Boundary in the Southern Appalachians.** Kenneth J. Englund, USGS—Reston; William H. Gillespie, USGS—Charleston; Thomas J. Crawford, Western Georgia College, Carrollton; C. Blaine Cecil, USGS—Reston; John F. Windolph, Jr., USGS—Reston. Four days, October 24, 25, 26, 27.

During-Meeting Trips

- 8. Winter Park Sinkhole.** Self-guided with handout prepared by Florida Sinkhole Research Institute. Transportation provided. Two separate one-half day trips, October 29 and October 30.

Postmeeting Trips

- 9. Florida Land-Pebble Phosphate District.** James B. Cathcart, USGS—Denver; Mark J. Stewart, University of South Florida, Tampa; Tom Scott, Florida Bureau of Geology, Tallahassee. Two days, November 1, 2.
- 10. Geology of Jamaica.** Grenville Draper, Florida International University, Miami. Four days, November 1, 2, 3, 4.
- 11. Geology of Haiti.** Florentin J.-M.R. Maurrasse, Florida International University, Miami. Five days, November 1, 2, 3, 4, 5.
- 12. Cenozoic Geology of the Apalachicola River Area, Northwest Florida.** Walter Schmidt, Florida Bureau of Geology, Tallahassee; Jeffrey Wagner, Northwest Florida Water Management District, Havana; Howard Kirk, Floridan Clay Company, Quincy. One day, November 1.

- 13. Coastal Morphology of Southwest Florida and Its Relevance to Past Human Occupation of That Coast.** Jerald T. Milanich, Florida State Museum, Gainesville; Thomas M. Messimer, Messimer & Associates, Cape Coral. Three days, October 31, November 1, 2.
- 14. Geology of the Darwin Archipelago (Galapagos Islands) and the Andes of Ecuador.** Michael R. Perfit, University of Florida, Gainesville. For further information, contact Mike Perfit or Giovanna Holbrook, Holbrook Travel, Inc., 3520 NW 13th Street, Gainesville, FL 32601, (904) 377-7111. Seven days, November 1, 2, 3, 4, 5, 6, 7.

SHORT COURSES

Details such as course descriptions, fees, and how to register for the short courses listed here will be provided in August *GSA News & Information*.

Mollusks. Sponsored by the Paleontological Society. Sunday, October 27, 8:00 a.m.–5:00 p.m. For information: David J. Bottjer, Dept. of Geological Sciences, University of Southern California, Los Angeles, CA 90089-0741; (213) 743-8913.

Modern and Ancient Deep-Sea Fan Sedimentation. Sponsored by the Society of Economic Paleontologists and Mineralogists. Saturday, October 26, and Sunday, October 27. For information: Jody Garrett, SEPM, P.O. Box 4756, Tulsa, OK 74159; (918) 743-2498.

Balancing Cross Sections. Sponsored by the GSA Structural Geology and Tectonics Division. Friday, November 1, and Saturday, November 2. For information: Nick Woodward, Dept. of Geological Sciences, University of Tennessee, Knoxville, TN 37916; (615) 974-6005.

Crystallography. Sponsored by the Mineralogical Society of America. Thursday through Sunday, October 24–27. For information: G. V. Gibbs, Dept. of Geological Sciences, 5057 Derring Hall, VPI & State University, Blacksburg, VA 24061; (703) 961-6521.

The Epithermal Environment. Sponsored by the Society of Economic Geologists. Thursday, October 24, through noon on Sunday, October 27. For information: Phillip M. Bethke, U.S. Geological Survey, National Center, MS 959, Reston, VA 22092; (703) 860-6602.

WORKSHOPS

GEOREF Round-Table for Advanced Users. Sponsored by AGI and GIS. Monday, October 28, 8:30 a.m.–12:00 noon. For information: Miriam Sheaves, Geology Librarian, University of North Carolina, Mitchell Hall (029-A), Chapel Hill, NC 27514; (919) 933-2386 or Julie Jackson, AGI, 4220 King Street, Alexandria, VA 22302; (703) 379-2480.

GEOREF Round-Table for Beginners. Sponsored by AGI and GIS. Thursday, October 31, 8:30 a.m.–12:00 noon. For information: Same as above.

Geowriting: Quickly. Clearly. Concisely. Sponsored by GSA. Saturday, October 26, 9:00 a.m.–5:00 p.m. Instructed by Wendell Cochran, science writer, editor, and photographer. For information: Jean Kinney, GSA headquarters.

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ORLANDO WELCOME

Orlando, one of the world's most popular tourist destinations, offers endless entertainment. Within a 20-minute drive is the WALT DISNEY WORLD® Resort, which includes the MAGIC KINGDOM® and the EPCOT Center (Experimental Prototype Community of Tomorrow). Sea World is within 10 minutes of the Convention Center. Within a 30-minute drive is Cypress Gardens, and within a 60-minute drive are both Busch Gardens and the Kennedy Space Center. The October meeting dates offer the advantage of good weather during a lull in the tourist season.

Anthony F. Randazzo, University of Florida, is the General Chairman for the 1985 Annual Meeting. He has selected his committee members from various Florida institutions, including the University of Florida, Florida State University, University of Central Florida, University of South Florida, and the Coastal Petroleum Company.

ACCOMMODATIONS

GSA has selected ten official hotels, which will offer special GSA convention rates. Eight hundred rooms are reserved at the Orlando Marriott (headquarters) on International Drive, which will host many of our social and business events. Other hotels include Hilton Inn Florida Center, Holiday Inn, Radisson Inn and Aquatic Center, Rodeway Inn, Howard Johnson's, two Day's Inns and two Quality Inns. Hotel rates range from \$32 to \$70 for a single and \$32 to \$80 for a double.

The Orange County Convention/Civic Center, which opened in February 1983, will be the location for all of the technical sessions, exhibits, employment service, science theater, and registration. The hotels range in distance from the Convention Center from within a few blocks to three miles. Shuttles will be provided for all GSA-selected hotels.

TRANSPORTATION

Getting there is convenient. Almost all major carriers fly into Orlando, making it accessible from all parts of the world. Air fares into Orlando are competitive. GSA will also name an official travel agency that will establish special discounted air fares.

Many of Orlando's special attractions can be reached only by car or bus. Car rental fees are being negotiated for GSA travelers. Private bus transportation is also a regular part of the services offered by many of the Orlando hotels.

WHAT'S HAPPENING

Exhibits. The Geoscience Exhibit opens Sunday, October 27, 6-9 p.m. Exhibitors will display computer hardware and software, measurement equipment, maps, X-ray diffraction and other instruments, cameras and other photographic equipment, spectrometers, microscopes, microanalysis equipment, and publications. For information, contact Kathy Ohmie, GSA headquarters.

Combined Publishers' Display. Designed for publishers who have 10 or fewer books to display, the booth will be located in the exhibit hall and offers a means to advertise at a minimal cost. GSA sets up and staffs the booth and distributes order forms to all viewers. For information, contact Jean Kinney, GSA headquarters.

Welcoming Party. Arrive in time for the opening-night reception at the Convention Center, 6-9 p.m. At the same time, you may register for the meeting, if you didn't preregister, and view the exhibits.

Guest Program. Orlando is a wonderland of tourist adventures. It offers many attractions for adults and children that cannot be found anywhere else, especially in one location. Trips to these various attractions can be arranged easily by individuals through the hotel concierge or, in advance, by your travel agent.

As a special consideration for GSA guests, additional customized programs are being arranged by your Orlando host committee. Guest tours are planned for Kennedy Space Center, Apoka (the fern capitol of the world), and historic Winter Park, where the world's largest selection of Tiffany glass can be seen. Other programs under consideration are a tasting seminar and programs on food sculpture and Florida citrus culture.

The Kennedy Space Center trip will include a guided professional tour of the center and the entire history of the space program. You will see exhibits of the actual rockets and missiles from America's moon exploration program. Luncheon is included.

The Hospitality Room will be open daily at the Marriott to welcome you, members of your family, and other guests.

Alumni Night. The traditional alumni night (Monday, October 28) may not be so traditional in Orlando! We're close to completing plans for a surprise that will take us out of the hotel ballroom and into a new and exciting atmosphere. Stay tuned! If you would like to schedule an alumni reception, please contact Jean Kinney, GSA headquarters, before June 1.

Employment Service. GSA will again offer its employment interview service. Booths are provided for employers to interview applicants who are registered with the service. Staff will be available to assist in scheduling these interviews. Computer listings of our applicant file and resumes are available to employers. See the March issue of *GSA News & Information* for forms and further information, or contact the Employment Service Coordinator at GSA headquarters, (303) 447-2020.

Special Events

Sea World. Wednesday evening, October 30. Sea World of Orlando has earned its reputation as one of the nation's top attractions, and it sets the standard for aquatic zoological parks. Sea World will feature four major shows for the GSA evening: Shamu, Dolphins, Waterski, and Shark Encounter. The evening also includes a casual, outdoor meal, soft drinks and beer, and live music.

Shakespeare's Tavern. Monday or Tuesday evening, October 28 or October 29. Extraordinary entertainment is the talent of colorfully costumed characters right out of the pages of history. William Shakespeare is the host overseeing the authentic Olde English song and dance festivities. For atmosphere, think Tom Jones, not Hamlet. This is a bawdy, six-course feast made for hearty appetites. It's an evening of pageantry, revelry, frivolity, FUN!

WALT DISNEY WORLD® Resort—Special Two-Day Pass. A special two-day pass will be available for GSA registrants and guests who want to visit the WALT DISNEY WORLD® Resort. This special pass provides back-and-forth access to both the MAGIC KINGDOM® and EPCOT Center during any two days between October 24 and November 3. The two-day pass includes all rides, attractions, and adventures. It also includes parking. The adult pass will be offered at a 10% discount. The passes may be purchased with your meeting registration.

Welcome New Members

23 mem
2 spouse
43 stud.

The following members and students have joined MSA effective January 1, 1985.

Welcome!

Applications for membership may be obtained from the Business Office, 2000 Florida Avenue N.W., Washington, D.C. 20009.

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